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Cys Gly Ile Ala Asp Phe Leu Ser Thr Tyr Gln Thr Lys Val Asp Lys 50 60
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SUBSTITUTE SHEET (RULE 26)

33318.ST25.PCT.txt

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SUBSTITUTE SHEET (RULE 26)

33318.ST25.PCT.txt

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Leu Ser Gly Phe Pro Thr Thr His Ala Gln Gln Gln Gln Ala Asp Val

Lys Asn Gly Ala Ala Ala Asp Ile Ile Phe Leu Val Asp Ser Ser Trp $\frac{35}{40}$

Thr Ile Gly Glu Glu His Phe Gln Leu Val Arg Glu Phe Leu Tyr Asp 50 55 60

Val Val Lys Ser Leu Ala Val Gly Glu Asn Asp Phe His Phe Ala Leu 65 70 75 80

Val Gln Phe Asn Gly Asn Pro His Thr Glu Phe Leu Leu Asn Thr Tyr 85 90 95

Arg Thr Lys Gln Glu Val Leu Ser His Ile Ser Asn Met Ser Tyr Ile 100 105 110

Gly Gly Thr Asn Gln Thr Gly Lys Gly Leu Glu Tyr Ile Met Gln Ser 115 120 125

His Leu Thr Lys Ala Ala Gly Ser Arg Ala Gly Asp Gly Val Pro Gln
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Val Ile Val Val Leu Thr Asp Gly His Ser Lys Asp Gly Leu Ala Leu 145 150 155 160

33318.ST25.PCT.txt

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33318.ST25.PCT.txt

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33318.ST25.PCT.txt

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33318.ST25.PCT.txt

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Phe	Thr 1595	Val	Arg	Glu	Phe	Arg 1600	Glu	Leu	Pro	Asn	Ile 1605	Glu	Glu	Arg
Ile	Met 1610	Asn	Ser	Phe	Gly	Pro 1615	Ser	Ala	Ala	Thr	Pro 1620	Ala	Pro	Pro
Gly	Val 1625	Asp	Thr	Pro	Pro	Pro 1630	Ser	Arg	Pro	Glu	Lys 1635	Lys	Lys	Ala
Asp	Ile 1640	٧al	Phe	Leu	Leu	Asp 1645	Gly	Ser	Ile	Asn	Phe 1650	Arg	Arg	Asp
Ser	Phe 1655	Gln	Glu	٧a٦	Leu	Arg 1660	Phe	va1	Ser	Glu	Ile 1665	Val	Asp	Thr
Val	Tyr 1670	Glu	Asp	Gly	Asp	Ser 1675	Ile	Gln	٧a٦	Gly	Leu 1680	Val	Gln	Tyr
Asn	Ser 1685	Asp	Pro	Thr	Asp	Glu 1690	Phe	Phe	Leu	Lys	Asp 1695	Phe	Ser	Thr
Lys	Arg 1700	Gln	Ile	Ile	Asp	Ala 1705	Ile	Asn	Lys	Val	Val 1710	Tyr	Lys	Gly
Gly	Arg 1715	His	Ala	Asn	Thr	Lys 1720	٧a٦	Glу	Leu	Glu	His 1725	Leu	Arg	٧a٦
Asn	ніs 1730	Phe	۷al	Pro	Glu	Ala 1735	GТу	ser	Arg	Leu	Asp 1740	Gln	Arg	val

33318.ST25.PCT.txt

Pro Gln Ile Ala Phe Val Ile Thr Gly Gly Lys Ser Val Glu Asp 1745 1750 1755 Ala Gln Asp Val Ser Leu Ala Leu Thr Gln Arg Gly Val Lys Val 1760 1765 1770 Phe Ala Val Gly Val Arg Asn Ile Asp Ser Glu Glu Val Gly Lys 1775 1780 1785 Ile Ala Ser Asn Ser Ala Thr Ala Phe Arg Val Gly Asn Val Gln 1790 1800 Glu Leu Ser Glu Leu Ser Glu Gln Val Leu Glu Thr Leu His Asp 1805 1810 1815 Ala Met His Glu Thr Leu Cys Pro Gly Val Thr Asp Ala Ala Lys 1820 1830 Ala Cys Asn Leu Asp Val Ile Leu Gly Phe Asp Gly Ser Arg Asp 1835 1840 1845 Gln Asn Val Phe Val Ala Gln Lys Gly Phe Glu Ser Lys Val Asp 1850 1860 Ala Ile Leu Asn Arg Ile Ser Gln Met His Arg Val Ser Cys Ser 1865 1870 1875 Gly Gly Arg Ser Pro Thr Val Arg Val Ser Val Val Ala Asn Thr 1880 1890 Pro Ser Gly Pro Val Glu Ala Phe Asp Phe Asp Glu Tyr Gln Pro 1895 1900 1905 Glu Met Leu Glu Lys Phe Arg Asn Met Arg Ser Gln His Pro Tyr 1910 1920 Val Leu Thr Glu Asp Thr Leu Lys Val Tyr Leu Asn Lys Phe Arg 1925 1930 1935 Gln Ser Ser Pro Asp Ser Val Lys Val Val Ile His Phe Thr Asp 1940 1950 Gly Ala Asp Gly Asp Leu Ala Asp Leu His Arg Ala Ser Glu Asn 1955 1960 1965 Leu Arg Gln Glu Gly Val Arg Ala Leu Ile Leu Val Gly Leu Glu 1970 1980 Arg Val Val Asn Leu Glu Arg Leu Met His Leu Glu Phe Gly Arg 1985 1990 1995

33318.ST25.PCT.txt

Gly Phe Met Tyr Asp Arg Pro Leu Arg Leu Asn Leu Leu Asp Leu 2000 2010 Asp Tyr Glu Leu Ala Glu Gln Leu Asp Asn Ile Ala Glu Lys Ala 2015 2025 Cys Cys Gly Val Pro Cys Lys Cys Ser Gly Gln Arg Gly Asp Arg 2030 2040 Gly Pro Ile Gly Ser Ile Gly Pro Lys Gly Ile Pro Gly Glu Asp 2045 2055 Gly Tyr Arg Gly Tyr Pro Gly Asp Glu Gly Gly Pro Gly Glu Arg 2060 2070 Gly Pro Pro Gly Val Asn Gly Thr Gln Gly Phe Gln Gly Cys Pro 2075 2080 2085 Gly Gln Arg Gly Val Lys Gly Ser Arg Gly Phe Pro Gly Glu Lys 2090 2100 Gly Glu Val Gly Glu Ile Gly Leu Asp Gly Leu Asp Gly Glu Asp 2105 2115 Gly Asp Lys Gly Leu Pro Gly Ser Ser Gly Glu Lys Gly Asn Pro 2120 2130 Gly Arg Arg Gly Asp Lys Gly Pro Arg Gly Glu Lys Gly Glu Arg 2135 2140 2145 Gly Asp Val Gly Ile Arg Gly Asp Pro Gly Asn Pro Gly Gln Asp 2150 2160 Ser Gln Glu Arg Gly Pro Lys Gly Glu Thr Gly Asp Leu Gly Pro 2165 2170 2175 Met Gly Val Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Glu 2180 2185 2190 Thr Gly Lys Asn Gly Gly Phe Gly Arg Arg Gly Pro Pro Gly Ala 2195 2200 2205 Lys Gly Asn Lys Gly Gly Pro Gly Gln Pro Gly Phe Glu Gly Glu 2210 2220 Gln Gly Thr Arg Gly Ala Gln Gly Pro Ala Gly Pro 2225 2230 2235 Pro Gly Leu Ile Gly Glu Gln Gly Ile Ser Gly Pro Arg Gly Ser 2240 2250

33318.ST25.PCT.txt

Gly Gly Ala Arg Gly Ala Pro Gly Glu Arg Gly Arg Thr Gly Pro 2255 2260 2265 Leu Gly Arg Lys Gly Glu Pro Gly Glu Pro Gly Pro Lys Gly Gly 2270 2280 Ile Gly Asn Pro Gly Pro Arg Gly Glu Thr Gly Asp Asp Gly Arg 2285 2290 2295 Asp Gly Val Gly Ser Glu Gly Arg Arg Gly Lys Lys Gly Glu Arg 2300 2310 Gly Phe Pro Gly Tyr Pro Gly Pro Lys Gly Asn Pro Gly Glu Pro 2315 2320 2325 Gly Leu Asn Gly Thr Thr Gly Pro Lys Gly Ile Arg Gly Arg Arg 2330 2340 Gly Asn Ser Gly Pro Pro Gly Ile Val Gly Gln Lys Gly Arg Pro 2345 2350 2355 Gly Tyr Pro Gly Pro Ala Gly Pro Arg Gly Asn Arg Gly Asp Ser 2360 2365 2370 Ile Asp Gln Cys Ala Leu Ile Gln Ser Ile Lys Asp Lys Cys Pro 2375 2380 2385 Cys Cys Tyr Gly Pro Leu Glu Cys Pro Val Phe Pro Thr Glu Leu 2390 2400 Ala Phe Ala Leu Asp Thr Ser Glu Gly Val Asn Gln Asp Thr Phe 2405 2410 2415 Gly Arg Met Arg Asp Val Val Leu Ser Ile Val Asn Val Leu Thr 2420 2430 Ile Ala Glu Ser Asn Cys Pro Thr Gly Ala Arg Val Ala Val Val 2435 2440 2445 Thr Tyr Asn Asn Glu Val Thr Thr Glu Ile Arg Phe Ala Asp Ser 2450 2455 2460 Lys Arg Lys Ser Val Leu Leu Asp Lys Ile Lys Asn Leu Gln Val 2465 2470 2475 Ala Leu Thr Ser Lys Gln Gln Ser Leu Glu Thr Ala Met Ser Phe 2480 2485 2490 Val Ala Arg Asn Thr Phe Lys Arg Val Arg Asn Gly Phe Leu Met 2495 2500 2505

33318.ST25.PCT.txt

Arg Lys Val Ala Val Phe Phe Ser Asn Thr Pro Thr Arg Ala Ser 2510 2520 Pro Gln Leu Arg Glu Ala Val Leu Lys Leu Ser Asp Ala Gly Ile 2525 2530 2535 Thr Pro Leu Phe Leu Thr Arg Gln Glu Asp Arg Gln Leu Ile Asn 2540 2550 Ala Leu Gln Ile Asn Asn Thr Ala Val Gly His Ala Leu Val Leu 2555 2560 2565 Pro Ala Gly Arg Asp Leu Thr Asp Phe Leu Glu Asn Val Leu Thr 2570 2580 Cys His Val Cys Leu Asp Ile Cys Asn Ile Asp Pro Ser Cys Gly 2585 2590 2595 Phe Gly Ser Trp Arg Pro Ser Phe Arg Asp Arg Ala Ala Gly 2600 2610 Ser Asp Val Asp Ile Asp Met Ala Phe Ile Leu Asp Ser Ala Glu 2615 2620 2625 Thr Thr Leu Phe Gln Phe Asn Glu Met Lys Lys Tyr Ile Ala 2630 2640 Tyr Leu Val Arg Gln Leu Asp Met Ser Pro Asp Pro Lys Ala Ser 2645 2655 Gln His Phe Ala Arg Val Ala Val Val Gln His Ala Pro Ser Glu 2660 2665 2670 Ser Val Asp Asn Ala Ser Met Pro Pro Val Lys Val Glu Phe Ser 2675 2680 2685 Leu Thr Asp Tyr Gly Ser Lys Glu Lys Leu Val Asp Phe Leu Ser 2690 2700 Arg Gly Met Thr Gln Leu Gln Gly Thr Arg Ala Leu Gly Ser Ala 2705 2710 2715 Ile Glu Tyr Thr Ile Glu Asn Val Phe Glu Ser Ala Pro Asn Pro 2720 2730 Arg Asp Leu Lys Ile Val Val Leu Met Leu Thr Gly Glu Val Pro 2735 2740 2745 Glu Gln Gln Leu Glu Glu Ala Gln Arg Val Ile Leu Gln Ala Lys 2750 2760

							33	J = 0 .	3,23					
Cys	Lys 2765	Gly	Tyr	Phe	Phe	va1 2770	Val	Leu	Gly	Ile	Gly 2775		Lys	٧a٦
Asn	Ile 2780	Lys	Glu	٧a٦	Tyr	Thr 2785	Phe	Ala	Ser	Glu	Pro 2790		Asp	٧a٦
Phe	Phe 2795	Lys	Leu	Val	Asp	Lys 2800	Ser	Thr	Glu	Leu	Asn 2805		Glu	Pro
Leu	Met 2810	Arg	Phe	Gly	Arg	Leu 2815	Leu	Pro	Ser	Phe	Val 2820		Ser	Glu
Asn	Ala 2825	Phe	Tyr	Leu	Ser	Pro 2830	Asp	Ile	Arg	Lys	G]n 2835	Cys	Asp	Trp
Phe	Gln 2840	Gly	Asp	Gln	Pro	Thr 2845	Lys	Asn	Leu	۷al	Lys 2850	Phe	Gly	His
Lys	G1n 2855	Val	Asn	٧a٦	Pro	Asn 2860	Asn	Val	Thr	Ser	Ser 2865	Pro	Thr	Ser
Asn	Pro 2870	۷al	Thr	Thr	Thr	Lys 2875	Pro	Val	Thr	Thr	Thr 2880	Lys	Pro	۷al
Thr	Thr 2885	Thr	Thr	Lys	Pro	Val 2890	Thr	Thr	Thr	Thr	Lys 2895	Pro	Val	Thr
Ile	Ile 2900	Asn	Gln	Pro	Ser	Va1 2905	Lys	Pro	Ala	Ala	Ala 2910	Lys	Pro	Ala
Pro	Ala 2915	Lys	Pro	۷a٦	Ala	Ala 2920	Lys	Pro	٧a٦	Аlа	Thr 2925	Lys	Thr	Ala
Thr	Val 2930	Arg	Pro	Pro	٧a٦	Ala 2935	Val	Lys	Pro	Ala	Thr 2940	Ala	Ala	Lys
Pro	Val 2945	Ala	Ala	Lys	Pro	Ala 2950	Ala	Val	Arg	Pro	Pro 2955	Ala	Ala	Ala
Ala	Lys 2960	Pro	٧a٦	Ala	Thr	Lys 2965	Pro	Glu	Val	Pro	Arg 2970	Pro	Gln	Ala
Ala	Lys 2975	Pro	Ala	Ala	Thr	Lys 2980	Pro	Αla	Thr	Thr	Lys 2985	Pro	Val	٧a٦
Lys	Met 2990	Leu	Arg	Glu	Val	G]n 2995	Val	Phe	Glu	Ile	Thr 3000	Glu	Asn	Ser
Ala	Lys 3005	Leu	His	Trp	Glu	Arg 3010	Pro	Glu	Pro	Pro	Gly 3015	Pro	Tyr	Phe

33318.ST25.PCT.txt

Tyr Asp Leu Thr Val Thr Ser Ala His Asp Gln Ser Leu Val Leu 3020 3025 3030

Lys Gln Asn Leu Thr Val Thr Asp Arg Val Ile Gly Gly Leu Leu 3035 3040 3045

Ala Gly Gln Thr Tyr His Val Ala Val Val Cys Tyr Leu Arg Ser 3050 3060

Gln Val Arg Ala Thr Tyr His Gly Ser Phe Ser Thr Lys Lys Ser 3065 3070 3075

Gln Pro Pro Pro Gln Pro Ala Arg Ser Ala Ser Ser Ser Thr 3080 3085 3090

Ile Asn Leu Met Val Ser Thr Glu Pro Leu Ala Leu Thr Glu Thr 3095 3100 3105

Asp Ile Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe 3110 3115 3120

Ile Leu Lys Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg 3125 3130 3135

Phe Trp Tyr Gly Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser 3140 3145 3150

Gln Lys Glu Cys Glu Lys Val Cys Ala Pro Val Leu Ala Lys Pro 3155 3160 3165

Gly Val Ile Ser Val Met Gly Thr 3170 3175

<210> 45 <211> 688

<211> 088 <212> PRT

<213> Homo sapiens

<400> 45

Met Trp Cys Ile Val Leu Phe Ser Leu Leu Ala Trp Val Tyr Ala Glu 10 15

Pro Thr Met Tyr Gly Glu Ile Leu Ser Pro Asn Tyr Pro Gln Ala Tyr 20 25 30

Pro Ser Glu Val Glu Lys Ser Trp Asp Ile Glu Val Pro Glu Gly Tyr 35 40 45

Gly Ile His Leu Tyr Phe Thr His Leu Asp Ile Glu Leu Ser Glu Asn 50 60

33318.ST25.PCT.txt
Cys Ala Tyr Asp Ser Val Gln Ile Ile Ser Gly Asp Thr Glu Glu Gly
65 70 75 80 Arg Leu Cys Gly Gln Arg Ser Ser Asn Asn Pro His Ser Pro Ile Val 85 90 95 Glu Glu Phe Gln Val Pro Tyr Asn Lys Leu Gln Val Ile Phe Lys Ser 100 105 110 Asp Phe Ser Asn Glu Glu Arg Phe Thr Gly Phe Ala Ala Tyr Tyr Val 115 120 Ala Thr Asp Ile Asn Glu Cys Thr Asp Phe Val Asp Val Pro Cys Ser 130 140 His Phe Cys Asn Asn Phe Ile Gly Gly Tyr Phe Cys Ser Cys Pro Pro 145 150 160 Glu Tyr Phe Leu His Asp Asp Met Lys Asn Cys Gly Val Asn Cys Ser 165 170 175 Gly Asp Val Phe Thr Ala Leu Ile Gly Glu Ile Ala Ser Pro Asn Tyr 180 185 190 Pro Lys Pro Tyr Pro Glu Asn Ser Arg Cys Glu Tyr Gln Ile Arg Leu 195 200 205 Glu Lys Gly Phe Gln Val Val Thr Leu Arg Arg Glu Asp Phe Asp 210 215 Val Glu Ala Ala Asp Ser Ala Gly Asn Cys Leu Asp Ser Leu Val Phe 225 230 235 240 Val Ala Gly Asp Arg Gln Phe Gly Pro Tyr Cys Gly His Gly Phe Pro 245 250 255 Gly Pro Leu Asn Ile Glu Thr Lys Ser Asn Ala Leu Asp Ile Ile Phe 260 265 270 Gln Thr Asp Leu Thr Gly Gln Lys Lys Gly Trp Lys Leu Arg Tyr His 275 280 285 Gly Asp Pro Met Pro Cys Pro Lys Glu Asp Thr Pro Asn Ser Val Trp 290 295 300 Glu Pro Ala Lys Ala Lys Tyr Val Phe Arg Asp Val Val Gln Ile Thr 305 310 315 Cys Leu Asp Gly Phe Glu Val Val Glu Gly Arg Val Gly Ala Thr Ser 325 330 335

33318.ST25.PCT.txt
Phe Tyr Ser Thr Cys Gln Ser Asn Gly Lys Trp Ser Asn Ser Lys Leu
340 345 350 Lys Cys Gln Pro Val Asp Cys Gly Ile Pro Glu Ser Ile Glu Asn Gly 355 360 Lys Val Glu Asp Pro Glu Ser Thr Leu Phe Gly Ser Val Ile Arg Tyr 370 380 Thr Cys Glu Glu Pro Tyr Tyr Tyr Met Glu Asn Gly Gly Gly Glu 385 390 395 400 Tyr His Cys Ala Gly Asn Gly Ser Trp Val Asn Glu Val Leu Gly Pro 405 410 415 Glu Leu Pro Lys Cys Val Pro Val Cys Gly Val Pro Arg Glu Pro Phe 420 430 Glu Glu Lys Gln Arg Ile Ile Gly Gly Ser Asp Ala Asp Ile Lys Asn 435 440 445 Phe Pro Trp Gln Val Phe Phe Asp Asn Pro Trp Ala Gly Gly Ala Leu 450 460 Ile Asn Glu Tyr Trp Val Leu Thr Ala Ala His Val Val Glu Gly Asn 465 470 475 480 Arg Glu Pro Thr Met Tyr Val Gly Ser Thr Ser Val Gln Thr Ser Arg 485 490 495 Leu Ala Lys Ser Lys Met Leu Thr Pro Glu His Val Phe Ile His Pro 500 505 510 Gly Trp Lys Leu Leu Glu Val Pro Glu Gly Arg Thr Asn Phe Asp Asn 515 520 Asp Ile Ala Leu Val Arg Leu Lys Asp Pro Val Lys Met Gly Pro Thr 530 540 Val Ser Pro Ile Cys Leu Pro Gly Thr Ser Ser Asp Tyr Asn Leu Met 545 550 555 560 Asp Gly Asp Leu Gly Leu Ile Ser Gly Trp Gly Arg Thr Glu Lys Arg 565 570 575 Asp Arg Ala Val Arg Leu Lys Ala Arg Leu Pro Val Ala Pro Leu 580 585 Arg Lys Cys Lys Glu Val Lys Val Glu Lys Pro Thr Ala Asp Ala Glu 595 600 605

33318.ST25.PCT.txt
Ala Tyr Val Phe Thr Pro Asn Met Ile Cys Ala Gly Gly Glu Lys Gly
610 615 620

Met Asp Ser Cys Lys Gly Asp Ser Gly Gly Ala Phe Ala Val Gln Asp 625 635 640

Pro Asn Asp Lys Thr Lys Phe Tyr Ala Ala Gly Leu Val Ser Trp Gly 645 650 655

Pro Gln Cys Gly Thr Tyr Gly Leu Tyr Thr Arg Val Lys Asn Tyr Val 660 665 670

Asp Trp Ile Met Lys Thr Met Gln Glu Asn Ser Thr Pro Arg Glu Asp 675 680 685

<210> 46

<211> 128

<212> PRT

<213> Homo sapiens

<400> 46

Met Gly Ile Gln Gly Gly Ser Val Leu Phe Gly Leu Leu Leu Val Leu 10 15

Ala Val Phe Cys His Ser Gly His Ser Leu Gln Cys Tyr Asn Cys Pro 20 25 30

Asn Pro Thr Ala Asp Cys Lys Thr Ala Val Asn Cys Ser Ser Asp Phe 35 40 45

Asp Ala Cys Leu Ile Thr Lys Ala Gly Leu Gln Val Tyr Asn Lys Cys 50 60

Trp Lys Phe Glu His Cys Asn Phe Asn Asp Val Thr Thr Arg Leu Arg 65 70 75 80

Glu Asn Glu Leu Thr Tyr Tyr Cys Cys Lys Lys Asp Leu Cys Asn Phe 85 90 95

Asn Glu Gln Leu Glu Asn Gly Gly Thr Ser Leu Ser Glu Lys Thr Val 100 105 110

Leu Leu Val Thr Pro Phe Leu Ala Ala Ala Trp Ser Leu His Pro 115 120 125

<210> 47

<211> 605

<213> Homo sapiens

<400> 47

Met Ala Leu Arg Lys Gly Gly Leu Ala Leu Ala Leu Leu Leu Leu Ser 10 15

33318.ST25.PCT.txt

Trp Val Ala Leu Gly Pro Arg Ser Leu Glu Gly Ala Asp Pro Gly Thr 20 25 30 Pro Gly Glu Ala Glu Gly Pro Ala Cys Pro Ala Ala Cys Val Cys Ser 35 40 45 Tyr Asp Asp Asp Ala Asp Glu Leu Ser Val Phe Cys Ser Ser Arg Asn 50 60 Leu Thr Arg Leu Pro Asp Gly Val Pro Gly Gly Thr Gln Ala Leu Trp 65 70 75 80 Leu Asp Gly Asn Asn Leu Ser Ser Val Pro Pro Ala Ala Phe Gln Asn 85 90 95 Leu Ser Ser Leu Gly Phe Leu Asn Leu Gln Gly Gln Leu Gly Ser 100 105 110Leu Glu Pro Gln Ala Leu Leu Gly Leu Glu Asn Leu Cys His Leu His 115 120 125 Leu Glu Arg Asn Gln Leu Arg Ser Leu Ala Leu Gly Thr Phe Ala His 130 140 Thr Pro Ala Leu Ala Ser Leu Gly Leu Ser Asn Asn Arg Leu Ser Arg 145 150 155 160 Leu Glu Asp Gly Leu Phe Glu Gly Leu Gly Ser Leu Trp Asp Leu Asn 165 170 175 Leu Gly Trp Asn Ser Leu Ala Val Leu Pro Asp Ala Ala Phe Arg Gly 180 185 190 Leu Gly Ser Leu Arg Glu Leu Val Leu Ala Gly Asn Arg Leu Ala Tyr 195 200 205 Leu Gln Pro Ala Leu Phe Ser Gly Leu Ala Glu Leu Arg Glu Leu Asp 210 215 220 Leu Ser Arg Asn Ala Leu Arg Ala Ile Lys Ala Asn Val Phe Val Gln 225 230 235 240 Leu Pro Arg Leu Gln Lys Leu Tyr Leu Asp Arg Asn Leu Ile Ala Ala 245 250 255 Val Ala Pro Gly Ala Phe Leu Gly Leu Lys Ala Leu Arg Trp Leu Asp 260 265 270 Leu Ser His Asn Arg Val Ala Gly Leu Leu Glu Asp Thr Phe Pro Gly 275 280 285

31

33318.ST25.PCT.txt

Leu Leu Gly Leu Arg Val Leu Arg Leu Ser His Asn Ala Ile Ala Ser 290 295 300 Leu Arg Pro Arg Thr Phe Lys Asp Leu His Phe Leu Glu Glu Leu Gln 305 310 315 320 Leu Gly His Asn Arg Ile Arg Gln Leu Ala Glu Arg Ser Phe Glu Gly 325 330 335 Leu Gly Gln Leu Glu Val Leu Thr Leu Asp His Asn Gln Leu Gln Glu 340 345 350 Val Lys Ala Gly Ala Phe Leu Gly Leu Thr Asn Val Ala Val Met Asn 355 360 365 Leu Ser Gly Asn Cys Leu Arg Asn Leu Pro Glu Gln Val Phe Arg Gly 370 380 Leu Gly Lys Leu His Ser Leu His Leu Glu Gly Ser Cys Leu Gly Arg 385 390 395 400 Ile Arg Pro His Thr Phe Thr Gly Leu Ser Gly Leu Arg Arg Leu Phe 405 410 415 Leu Lys Asp Asn Gly Leu Val Gly Ile Glu Glu Gln Ser Leu Trp Gly
420 425 430 Leu Ala Glu Leu Leu Glu Leu Asp Leu Thr Ser Asn Gln Leu Thr His 435 440 445 Leu Pro His Arg Leu Phe Gln Gly Leu Gly Lys Leu Glu Tyr Leu Leu 450 460 Leu Ser Arg Asn Arg Leu Ala Glu Leu Pro Ala Asp Ala Leu Gly Pro 465 470 475 480 Leu Gln Arg Ala Phe Trp Leu Asp Val Ser His Asn Arg Leu Glu Ala 485 490 495 Leu Pro Asn Ser Leu Leu Ala Pro Leu Gly Arg Leu Arg Tyr Leu Ser 500 510 Leu Arg Asn Asn Ser Leu Arg Thr Phe Thr Pro Gln Pro Pro Gly Leu 515 520 525 Glu Arg Leu Trp Leu Glu Gly Asn Pro Trp Asp Cys Gly Cys Pro Leu 530 540 Lys Ala Leu Arg Asp Phe Ala Leu Gln Asn Pro Ser Ala Val Pro Arg 545 550 555 560 32

SUBSTITUTE SHEET (RULE 26)

33318.ST25.PCT.txt

Phe Val Gln Ala Ile Cys Glu Gly Asp Asp Cys Gln Pro Pro Ala Tyr 565 570 575

Thr Tyr Asn Asn Ile Thr Cys Ala Ser Pro Pro Glu Val Val Gly Leu 580 585 590

Asp Leu Arg Asp Leu Ser Glu Ala His Phe Ala Pro Cys 595 600 605

<210> 48

<211> <212> PRT

<213> Homo sapiens

<400> 48

Met Arg Thr Ile Ala Ile Leu Ala Ala Ile Leu Leu Val Ala Leu Gln
5 10 15

Ala Gln Ala Glu Ser Leu Gln Glu Arg Ala Asp Glu Ala Thr Thr Gln
20 25 30

Lys Gln Ser Gly Glu Asp Asn Gln Asp Leu Ala Ile Ser Phe Ala Gly
35 40 45

Asn Gly Leu Ser Ala Leu Arg Thr Ser Gly Ser Gln Ala Arg Ala Thr 50 60

Cys Tyr Cys Arg Thr Gly Arg Cys Ala Thr Arg Glu Ser Leu Ser Gly 65 70 75 80

Val Cys Glu Ile Ser Gly Arg Leu Tyr Arg Leu Cys Cys Arg

<210> <211>

151

Homo sapiens

<400> 49

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp 1 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg
35 40 45

Val Val Glu Pro Pro Glu Lys Asp Gln Leu Val Val Leu Phe Pro 50 55 60

33318.ST25.PCT.txt
Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln
65 70 75 80

Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr Glu 85 90 95

Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser Leu 100 105 110

Tyr His Pro Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu 115 120 125

Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp Gln 130 140

Asp His Ile Tyr His Pro Gln 145 150

<210> 50

<211> 949 <212> PRT

<213> Homo sapiens

<400> 50

Met Ile Leu Ser Leu Leu Phe Ser Leu Gly Gly Pro Leu Gly Trp Gly 10 10 15

Leu Leu Gly Ala Trp Ala Gln Ala Ser Ser Thr Ser Leu Ser Asp Leu 20 25 30

Gln Ser Ser Arg Thr Pro Gly Val Trp Lys Ala Glu Ala Glu Asp Thr 35 40 45

Ser Lys Asp Pro Val Gly Arg Asn Trp Cys Pro Tyr Pro Met Ser Lys 50 60

Leu Val Thr Leu Leu Ala Leu Cys Lys Thr Glu Lys Phe Leu Ile His 65 70 75 80

Ser Gln Gln Pro Cys Pro Gln Gly Ala Pro Asp Cys Gln Lys Val Lys 85 90 95

Val Met Tyr Arg Met Ala His Lys Pro Val Tyr Gln Val Lys Gln Lys 100 105 110

Val Leu Thr Ser Leu Ala Trp Arg Cys Cys Pro Gly Tyr Thr Gly Pro 115 120 125

Asn Cys Glu His His Asp Ser Met Ala Ile Pro Glu Pro Ala Asp Pro 130 135 140

Gly Asp Ser His Gln Glu Pro Gln Asp Gly Pro Val Ser Phe Lys Pro

SUBSTITUTE SHEET (RULE 26)

160

33318.ST25.PCT.txt 145 150 155

Gly His Leu Ala Ala Val Ile Asn Glu Val Glu Val Gln Glu Gln 165 170 175

Gln Glu His Leu Leu Gly Asp Leu Gln Asn Asp Val His Arg Val Ala 180 185 190

Asp Ser Leu Pro Gly Leu Trp Lys Ala Leu Pro Gly Asn Leu Thr Ala 195 200 205

Ala Val Met Glu Ala Asn Gln Thr Gly His Glu Phe Pro Asp Arg Ser 210 215 220

Leu Glu Gln Val Leu Leu Pro His Val Asp Thr Phe Leu Gln Val His 225 230 235 240

Phe Ser Pro Ile Trp Arg Ser Phe Asn Gln Ser Leu His Ser Leu Thr 245 250 255

Gln Ala Ile Arg Asn Leu Ser Leu Asp Val Glu Ala Asn Arg Gln Ala 260 265 270

Ile Ser Arg Val Gln Asp Ser Ala Val Ala Arg Ala Asp Phe Gln Glu 275 280 285

Leu Gly Ala Lys Phe Glu Ala Lys Val Gln Glu Asn Thr Gln Arg Val 290 295 300

Gly Gln Leu Arg Gln Asp Val Glu Asp Arg Leu His Ala Gln His Phe 305 310 315 320

Thr Leu His Arg Ser Ile Ser Glu Leu Gln Ala Asp Val Asp Thr Lys 325 330 335

Leu Lys Arg Leu His Lys Ala Gln Glu Ala Pro Gly Thr Asn Gly Ser 340 350

Leu Val Leu Ala Thr Pro Gly Ala Gly Ala Arg Pro Glu Pro Asp Ser 355 360 365

Leu Gln Ala Arg Leu Gly Gln Leu Gln Arg Asn Leu Ser Glu Leu His 370 380

Met Thr Thr Ala Arg Arg Glu Glu Glu Leu Gln Tyr Thr Leu Glu Asp 385 390 395 400

Met Arg Ala Thr Leu Thr Arg His Val Asp Glu Ile Lys Glu Leu Tyr 405 410 415

Ser Glu Ser Asp Glu Thr Phe Asp Gln Ile Ser Lys Val Glu Arg Gln

33318.ST25.PCT.txt 420 425

Val Glu Glu Leu Gln Val Asn His Thr Ala Leu Arg Glu Leu Arg Val 435 440 445 Ile Leu Met Glu Lys Ser Leu Ile Met Glu Glu Asn Lys Glu Glu Val 450 455 460 Glu Arg Gln Leu Leu Glu Leu Asn Leu Thr Leu Gln His Leu Gln Gly 465 470 475 480 Gly His Ala Asp Leu Ile Lys Tyr Val Lys Asp Cys Asn Cys Gln Lys 485 490 495 Leu Tyr Leu Asp Leu Asp Val Ile Arg Glu Gly Gln Arg Asp Ala Thr 500 510 Arg Ala Leu Glu Glu Thr Gln Val Ser Leu Asp Glu Arg Arg Gln Leu 515 525 Asp Gly Ser Ser Leu Gln Ala Leu Gln Asn Ala Val Asp Ala Val Ser 530 540 Leu Ala Val Asp Ala His Lys Ala Glu Gly Glu Arg Ala Arg Ala Ala 545 550 555 560 Thr Ser Arg Leu Arg Ser Gln Val Gln Ala Leu Asp Asp Glu Val Gly 565 570 Ala Leu Lys Ala Ala Ala Ala Glu Ala Arg His Glu Val Arg Gln Leu 580 585 His Ser Ala Phe Ala Ala Leu Leu Glu Asp Ala Leu Arg His Glu Ala 595 600 605 Val Leu Ala Ala Leu Phe Gly Glu Glu Val Leu Glu Glu Met Ser Glu 610 620 Gln Thr Pro Gly Pro Leu Pro Leu Ser Tyr Glu Gln Ile Arg Val Ala 625 630 635 640 Leu Gln Asp Ala Ala Ser Gly Leu Gln Glu Gln Ala Leu Gly Trp Asp 645 650 655 Glu Leu Ala Ala Arg Val Thr Ala Leu Glu Gln Ala Ser Glu Pro Pro 660 665 670 Arg Pro Ala Glu His Leu Glu Pro Ser His Asp Ala Gly Arg Glu Glu 675 680 685 Ala Ala Thr Thr Ala Leu Ala Gly Leu Ala Arg Glu Leu Gln Ser Leu

SUBSTITUTE SHEET (RULE 26)

33318.ST25.PCT.txt 690 695 700

Ser Asn Asp Val Lys Asn Val Gly Arg Cys Cys Glu Ala Glu Ala Gly 705 710 715 720

Ala Gly Ala Ala Ser Leu Asn Ala Ser Leu Asp Gly Leu His Asn Ala 725 730 735

Leu Phe Ala Thr Gln Arg Ser Leu Glu Gln His Gln Arg Leu Phe His 740 745 750

Ser Leu Phe Gly Asn Phe Gln Gly Leu Met Glu Ala Asn Val Ser Leu 755 760 765

Asp Leu Gly Lys Leu Gln Thr Met Leu Ser Arg Lys Gly Lys Lys Gln 770 780

Gln Lys Asp Leu Glu Ala Pro Arg Lys Arg Asp Lys Lys Glu Ala Glu 785 790 795 800

Pro Leu Val Asp Ile Arg Val Thr Gly Pro Val Pro Gly Ala Leu Gly 805 810 815

Ala Ala Leu Trp Glu Ala Gly Ser Pro Val Ala Phe Tyr Ala Ser Phe 820 825 830

Ser Glu Gly Thr Ala Ala Leu Gln Thr Val Lys Phe Asn Thr Thr Tyr 835 840 845

Ile Asn Ile Gly Ser Ser Tyr Phe Pro Glu His Gly Tyr Phe Arg Ala 850 860

Pro Glu Arg Gly Val Tyr Leu Phe Ala Val Ser Val Glu Phe Gly Pro 865 870 875 880

Gly Pro Gly Thr Gly Gln Leu Val Phe Gly Gly His His Arg Thr Pro 885 890 895

Val Cys Thr Thr Gly Gln Gly Ser Gly Ser Thr Ala Thr Val Phe Ala 900 905 910

Met Ala Glu Leu Gln Lys Gly Glu Arg Val Trp Phe Glu Leu Thr Gln 915 920 925

Gly Ser Ile Thr Lys Arg Ser Leu Ser Gly Thr Ala Phe Gly Gly Phe 930 940

Leu Met Phe Lys Thr 945

<210> 51

33318.ST25.PCT.txt

<211> 185 <212> PRT

<213> Homo sapiens

<400> 51

Met Lys Phe Thr Ile Val Phe Ala Gly Leu Leu Gly Val Phe Leu Ala 10 15

Pro Ala Leu Ala Asn Tyr Asn Ile Asn Val Asn Asp Asp Asn Asn Asn 20 25 30

Ala Gly Ser Gly Gln Gln Ser Val Ser Val Asn Asn Glu His Asn Val 35 40 45

Ala Asn Val Asp Asn Asn Asn Gly Trp Asp Ser Trp Asn Ser Ile Trp 50 55 60

Asp Tyr Gly Asn Gly Phe Ala Ala Thr Arg Leu Phe Gln Lys Lys Thr 65 70 75 80

Cys Ile Val His Lys Met Asn Lys Glu Val Met Pro Ser Ile Gln Ser 85 90 95

Leu Asp Ala Leu Val Lys Glu Lys Lys Leu Gln Gly Lys Gly Pro Gly 100 105 110

Gly Pro Pro Pro Lys Gly Leu Met Tyr Ser Val Asn Pro Asn Lys Val 115 120 125

Asp Asp Leu Ser Lys Phe Gly Lys Asn Ile Ala Asn Met Cys Arg Gly 130 140

Ile Pro Thr Tyr Met Ala Glu Glu Met Gln Glu Ala Ser Leu Phe Phe 145 150 155 160

Tyr Ser Gly Thr Cys Tyr Thr Thr Ser Val Leu Trp Ile Val Asp Ile 165 170 175

Ser Phe Cys Gly Asp Thr Val Glu Asn 180 185

<210> 52

<211> 1676

<212> PRT

<213> Homo sapiens

<400> 52

Met Gly Leu Leu Gly Ile Leu Cys Phe Leu Ile Phe Leu Gly Lys Thr 1 5 10 15

Trp Gly Gln Glu Gln Thr Tyr Val Ile Ser Ala Pro Lys Ile Phe Arg 20 25 30

33318.ST25.PCT.txt

Val Gly Ala Ser Glu Asn Ile Val Ile Gln Val Tyr Gly Tyr Thr Glu
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33318.ST25.PCT.txt

Thr Ala Val Lys Glu Leu Ser Tyr Tyr Ser Leu Glu Asp Leu Asn Asn 305 310 315 320 Lys Tyr Leu Tyr Ile Ala Val Thr Val Ile Glu Ser Thr Gly Gly Phe 325 330 335 Ser Glu Glu Ala Glu Ile Pro Gly Ile Lys Tyr Val Leu Ser Pro Tyr 340 345 350 Lys Leu Asn Leu Val Ala Thr Pro Leu Phe Leu Lys Pro Gly Ile Pro 355 360 365 Tyr Pro Ile Lys Val Gln Val Lys Asp Ser Leu Asp Gln Leu Val Gly 370 380 Gly Val Pro Val Ile Leu Asn Ala Gln Thr Ile Asp Val Asn Gln Glu 385 390 395 400 Thr Ser Asp Leu Asp Pro Ser Lys Ser Val Thr Arg Val Asp Asp Gly 405 410 415 Val Ala Ser Phe Val Leu Asn Leu Pro Ser Gly Val Thr Val Leu Glu 420 425 430 Phe Asn Val Lys Thr Asp Ala Pro Asp Leu Pro Glu Glu Asn Gln Ala 435 440 445 Arg Glu Gly Tyr Arg Ala Ile Ala Tyr Ser Ser Leu Ser Gln Ser Tyr 450 455 460 Leu Tyr Ile Asp Trp Thr Asp Asn His Lys Ala Leu Leu Val Gly Glu 465 470 475 480 His Leu Asn Ile Ile Val Thr Pro Lys Ser Pro Tyr Ile Asp Lys Ile 485 490 495 Thr His Tyr Asn Tyr Leu Ile Leu Ser Lys Gly Lys Ile Ile His Phe 500 510 Gly Thr Arg Glu Lys Phe Ser Asp Ala Ser Tyr Gln Ser Ile Asn Ile 515 520 525 Pro Val Thr Gln Asn Met Val Pro Ser Ser Arg Leu Leu Val Tyr Tyr 530 540 Ile Val Thr Gly Glu Gln Thr Ala Glu Leu Val Ser Asp Ser Val Trp 545 550 555 560 Leu Asn Ile Glu Glu Lys Cys Gly Asn Gln Leu Gln Val His Leu Ser 565 570 575

33318.ST25.PCT.txt

Pro Asp Ala Asp Ala Tyr Ser Pro Gly Gln Thr Val Ser Leu Asn Met 580 585 590 Ala Thr Gly Met Asp Ser Trp Val Ala Leu Ala Ala Val Asp Ser Ala 595 600 605 Val Tyr Gly Val Gln Arg Gly Ala Lys Lys Pro Leu Glu Arg Val Phe 610 620 Gln Phe Leu Glu Lys Ser Asp Leu Gly Cys Gly Ala Gly Gly Gly Leu 625 630 635 Asn Asn Ala Asn Val Phe His Leu Ala Gly Leu Thr Phe Leu Thr Asn 645 655 Ala Asn Ala Asp Asp Ser Gln Glu Asn Asp Glu Pro Cys Lys Glu Ile 660 665 670 Leu Arg Pro Arg Arg Thr Leu Gln Lys Lys Ile Glu Glu Ile Ala Ala 675 680 685 Lys Tyr Lys His Ser Val Val Lys Lys Cys Cys Tyr Asp Gly Ala Cys 690 695 700 Val Asn Asn Asp Glu Thr Cys Glu Gln Arg Ala Ala Arg Ile Ser Leu 705 710 715 720 Gly Pro Arg Cys Ile Lys Ala Phe Thr Glu Cys Cys Val Val Ala Ser 725 730 735 Gln Leu Arg Ala Asn Ile Ser His Lys Asp Met Gln Leu Gly Arg Leu 740 745 750 His Met Lys Thr Leu Leu Pro Val Ser Lys Pro Glu Ile Arg Ser Tyr 755 760 765 Phe Pro Glu Ser Trp Leu Trp Glu Val His Leu Val Pro Arg Arg Lys 770 780 Gln Leu Gln Phe Ala Leu Pro Asp Ser Leu Thr Thr Trp Glu Ile Gln 785 790 795 800 Gly Ile Gly Ile Ser Asn Thr Gly Ile Cys Val Ala Asp Thr Val Lys 805 810 815 Ala Lys Val Phe Lys Asp Val Phe Leu Glu Met Asn Ile Pro Tyr Ser 820 825 830 Val Val Arg Gly Glu Gln Ile Gln Leu Lys Gly Thr Val Tyr Asn Tyr 835 840 845

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33318.ST25.PCT.txt

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Ser Lys Cys Val Arg Gln Lys Val Glu Gly Ser Ser Ser His Leu Val 885 890 895

Thr Phe Thr Val Leu Pro Leu Glu Ile Gly Leu His Asn Ile Asn Phe 900 905 910

Ser Leu Glu Thr Trp Phe Gly Lys Glu Ile Leu Val Lys Thr Leu Arg 915 920 925

Val Val Pro Glu Gly Val Lys Arg Glu Ser Tyr Ser Gly Val Thr Leu 930 935 940

Asp Pro Arg Gly Ile Tyr Gly Thr Ile Ser Arg Arg Lys Glu Phe Pro 945 950 955 960

Tyr Arg Ile Pro Leu Asp Leu Val Pro Lys Thr Glu Ile Lys Arg Ile 965 970 975

Leu Ser Val Lys Gly Leu Leu Val Gly Glu Ile Leu Ser Ala Val Leu 980 985 990

Ser Gln Glu Gly Ile Asn Ile Leu Thr His Leu Pro Lys Gly Ser Ala 995 1000 1005

Glu Ala Glu Leu Met Ser Val Val Pro Val Phe Tyr Val Phe His 1010 1020

Tyr Leu Glu Thr Gly Asn His Trp Asn Ile Phe His Ser Asp Pro 1025 1030 1035

Leu Ile Glu Lys Gln Lys Leu Lys Lys Leu Lys Glu Gly Met 1040 1050

Leu Ser Ile Met Ser Tyr Arg Asn Ala Asp Tyr Ser Tyr Ser Val 1055 1060 1065

Trp Lys Gly Gly Ser Ala Ser Thr Trp Leu Thr Ala Phe Ala Leu 1070 1080

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Ser Ile Cys Asn Ser Leu Leu Trp Leu Val Glu Asn Tyr Gln Leu 1100 1105 1110

33318.ST25.PCT.txt

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33318.ST25.PCT.txt

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33318.ST25.PCT.txt

Ala Leu Gln Ile Lys Tyr Asn Phe Ser Phe Arg Tyr Ile Tyr Pro 1625 1630 1635

Leu Asp Ser Leu Thr Trp Ile Glu Tyr Trp Pro Arg Asp Thr Thr 1640 1650

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Thr Trp Ala Gln Trp Phe Glu Thr Gln His Ile Asn Met Thr Ser Gln 40 45

Gln Cys Thr Asn Ala Met Gln Val Ile Asn Asn Tyr Gln Arg Arg Cys 50 60

Lys Asn Gln Asn Thr Phe Leu Leu Thr Thr Phe Ala Asn Val Val Asn 65 70 75 80

Val Cys Gly Asn Pro Asn Met Thr Cys Pro Ser Asn Lys Thr Arg Lys
85 90 95

Asn Cys His His Ser Gly Ser Gln Val Pro Leu Ile His Cys Asn Leu 100 105 110

Thr Thr Pro Ser Pro Gln Asn Ile Ser Asn Cys Arg Tyr Ala Gln Thr 115 120 125

Pro Ala Asn Met Phe Tyr Ile Val Ala Cys Asp Asn Arg Asp Gln Arg 130 140

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His Glu Val Ile Asn Ile Asn Leu Lys Asn Lys Pro Glu Trp Phe Phe 50 60

Lys Lys Asn Pro Phe Gly Leu Val Pro Val Leu Glu Asn Ser Gln Gly 65 70 75 80

Gln Leu Ile Tyr Glu Ser Ala Ile Thr Cys Glu Tyr Leu Asp Glu Ala 85 90 95

Tyr Pro Gly Lys Lys Leu Leu Pro Asp Asp Pro Tyr Glu Lys Ala Cys 100 105 110

Gln Lys Met Ile Leu Glu Leu Phe Ser Lys Val Pro Ser Leu Val Gly 115 120 125

Ser Phe Ile Arg Ser Gln Asn Lys Glu Asp Tyr Ala Gly Leu Lys Glu 130 140

Glu Phe Arg Lys Glu Phe Thr Lys Leu Glu Glu Val Leu Thr Asn Lys 145 150 155 160

Lys Thr Thr Phe Phe Gly Gly Asn Ser Ile Ser Met Ile Asp Tyr Leu 165 170 175

Ile Trp Pro Trp Phe Glu Arg Leu Glu Ala Met Lys Leu Asn Glu Cys 180 185 190

Val Asp His Thr Pro Lys Leu Lys Leu Trp Met Ala Ala Met Lys Glu 195 200 205

Asp Pro Thr Val Ser Ala Leu Leu Thr Ser Glu Lys Asp Trp Gln Gly 210 220

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Leu Tyr Asp Glu Glu Lys Tyr Lys Pro Phe Ser Gln Val Pro Thr Gly 35 40 45

Glu Val Phe Tyr Tyr Ser Cys Glu Tyr Asn Phe Val Ser Pro Ser Lys 50 55 60

Ser Phe Trp Thr Arg Ile Thr Cys Thr Glu Glu Gly Trp Ser Pro Thr 65 70 75 80

Pro Lys Cys Leu Arg Leu Cys Phe Phe Pro Phe Val Glu Asn Gly His 85 90 95

Ser Glu Ser Ser Gly Gln Thr His Leu Glu Gly Asp Thr Val Gln Ile 100 105 110

Ile Cys Asn Thr Gly Tyr Arg Leu Gln Asn Asn Glu Asn Asn Ile Ser 115 120 125

Cys Val Glu Arg Gly Trp Ser Thr Pro Pro Lys Cys Arg Ser Thr Asp 130 140

Thr Ser Cys Val Asn Pro Pro Thr Val Gln Asn Ala Tyr Ile Val Ser 145 150 155 160

Arg Gln Met Ser Lys Tyr Pro Ser Gly Glu Arg Val Arg Tyr Gln Cys
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Arg Ser Pro Tyr Glu Met Phe Gly Asp Glu Glu Val Met Cys Leu Asn 180 185 190

Gly Asn Trp Thr Glu Pro Pro Gln Cys Lys Asp Ser Thr Gly Lys Cys 195 200 205

Gly Pro Pro Pro Ile Asp Asn Gly Asp Ile Thr Ser Phe Pro Leu 210 225 220

Ser Val Tyr Ala Pro Ala Ser Ser Val Glu Tyr Gln Cys Gln Asn Leu 225 230 235 240 47

33318.ST25.PCT.txt

Tyr Gln Leu Glu Gly Asn Lys Arg Ile Thr Cys Arg Asn Gly Gln Trp 245 250 255

Ser Glu Pro Pro Lys Cys Leu His Pro Cys Val Ile Ser Arg Glu Ile 260 265 270

Met Glu Asn Tyr Asn Ile Ala Leu Arg Trp Thr Ala Lys Gln Lys Leu 275 280 285

Tyr Leu Arg Thr Gly Glu Ser Ala Glu Phe Val Cys Lys Arg Gly Tyr 290 295 300

Arg Leu Ser Ser Arg Ser His Thr Leu Arg Thr Thr Cys Trp Asp Gly 315 320

Lys Leu Glu Tyr Pro Thr Cys Ala Lys Arg 325 330

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Tyr Asp Tyr Asp Pro Ser Ser Leu Arg Asp Ala Leu Ser Ala Ser Val 35

Val Lys Val Asn Ser Gln Ser Leu Ser Pro Tyr Leu Phe Arg Ala Phe 50 60

Arg Ser Ser Leu Lys Arg Val Glu Val Leu Asp Glu Asn Asn Leu Val 65 70 75 80

Met Asn Leu Glu Phe Ser Ile Arg Glu Thr Thr Cys Arg Lys Asp Ser 85 90 95

Gly Glu Asp Pro Ala Thr Cys Ala Phe Gln Arg Asp Tyr Tyr Val Ser 100 105 110

Thr Ala Val Cys Arg Ser Thr Val Lys Val Ser Ala Gln Gln Val Gln
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Gly Val His Ala Arg Cys Ser Trp Ser Ser Ser Thr Ser Glu Ser Tyr 130 140

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Homo sapiens

33318.ST25.PCT.txt

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Arg Asn Asn Tyr Leu Phe Gly Leu Ile Ser Asp Glu Ser Ile Ser Glu 165 170 175

Gln Phe Tyr Asp Arg Ser Leu Gly Ile Met Arg Arg Val Leu Pro Pro 180 185 190

Gly Asn Arg Arg Tyr Pro Asn His Arg His Arg Ala Arg Ile Asn Thr 195 200 205

Asp Phe Glu 210

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Met Val Arg Ser Val Ala Trp Ala Gly Phe Met Val Leu Leu Met Ile 10 10

Pro Trp Gly Ser Ala Ala Lys Leu Val Cys Tyr Phe Thr Asn Trp Ala 20 25 30

Gln Tyr Arg Gln Gly Glu Ala Arg Phe Leu Pro Lys Asp Leu Asp Pro 35 40 45

Ser Leu Cys Thr His Leu Ile Tyr Ala Phe Ala Gly Met Thr Asn His 50 55 60

Gln Leu Ser Thr Thr Glu Trp Asn Asp Glu Thr Leu Tyr Gln Glu Phe 65 70 75 80

Asn Gly Leu Lys Lys Met Asn Pro Lys Leu Lys Thr Leu Leu Ala Ile 85 90 95

Gly Gly Trp Asn Phe Gly Thr Gln Lys Phe Thr Asp Met Val Ala Thr 100 105 110

Ala Asn Asn Arg Gln Thr Phe Val Asn Ser Ala Ile Arg Phe Leu Arg 115 120 125

Lys Tyr Ser Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro Gly Ser 130 140

Gln Gly Ser Pro Ala Val Asp Lys Glu Arg Phe Thr Thr Leu Val Gln 145 150 155 160

33318.ST25.PCT.txt
Asp Leu Ala Asn Ala Phe Gln Gln Glu Ala Gln Thr Ser Gly Lys Glu
165 170 175 Arg Leu Leu Ser Ala Ala Val Pro Ala Gly Gln Thr Tyr Val Asp 180 185 190 Ala Gly Tyr Glu Val Asp Lys Ile Ala Gln Asn Leu Asp Phe Val Asn 195 200 205 Leu Met Ala Tyr Asp Phe His Gly Ser Trp Glu Lys Val Thr Gly His 210 220 Asn Ser Pro Leu Tyr Lys Arg Gln Glu Glu Ser Gly Ala Ala Ser 225 230 235 240 Leu Asn Val Asp Ala Ala Val Gln Gln Trp Leu Gln Lys Gly Thr Pro 245 250 255 Ala Ser Lys Leu Ile Leu Gly Met Pro Thr Tyr Gly Arg Ser Phe Thr 260 265 270 Leu Ala Ser Ser Ser Asp Thr Arg Val Gly Ala Pro Ala Thr Gly Ser 275 280 285 Gly Thr Pro Gly Pro Phe Thr Lys Glu Gly Gly Met Leu Ala Tyr Tyr 290 295 300 Glu Val Cys Ser Trp Lys Gly Ala Thr Lys Gln Arg Ile Gln Asp Gln 305 310 315 320 Lys Val Pro Tyr Ile Phe Arg Asp Asn Gln Trp Val Gly Phe Asp Asp 325 330 335 Val Glu Ser Phe Lys Thr Lys Val Ser Tyr Leu Lys Gln Lys Gly Leu 340 350 Gly Gly Ala Met Val Trp Ala Leu Asp Leu Asp Asp Phe Ala Gly Phe 355 360 365 Ser Cys Asn Gln Gly Arg Tyr Pro Leu Ile Gln Thr Leu Arg Gln Glu 370 380 Leu Ser Leu Pro Tyr Leu Pro Ser Gly Thr Pro Glu Leu Glu Val Pro 385 390 395 Lys Pro Gly Gln Pro Ser Glu Pro Glu His Gly Pro Ser Pro Gly Gln
405 410 415 Asp Thr Phe Cys Gln Gly Lys Ala Asp Gly Leu Tyr Pro Asn Pro Arg 420 425 430

33318.ST25.PCT.txt Glu Arg Ser Ser Phe Tyr Ser Cys Ala Ala Gly Arg Leu Phe Gln Gln Ser Cys Pro Thr Gly Leu Val Phe Ser Asn Ser Cys Lys Cys Cys Thr 450 460 Trp Asn 465 <210> 58 <211> 25 <212> DNA <213> Artificial <220> <223> Primer 212788_x_at <400> 58 tctggaaggc gtgagccact tcttc 25 <210> 59 <211> 25 <212> DNA <213> Artificial <220> <223> Primer 212788_x_at <400> 59 gctacgagcg tctcctgaag atgca 25 <210> 60 <211> 25 <212> DNA <213> Artificial <220> <223> Primer 212788_x_at <400> 60 aaaccccaga cgccatgaaa gctgc 25 <210> 61 <211> 25 <212> DNA <213> Artificial <220> <223> Primer 212788_x_at <400> 61 tgaaagctgc catggccctg gagaa 25 <210> 62 <211> 25 <212> DNA Artificial <213> <220> <223> Primer 212788_x_at

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